

NOV 07 2007



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Subject: Application Serial No. 10/685,318
Docket No. 5682A
Applicant: Fang et al.
Filed: October 14, 2003
Title: "Treated textiles and compositions
for treating textiles"

Date: November 7, 2007

Copies:

Pages: 18 (including cover)

Comments:

Please find attached the following:

Declaration of Inventor Sidney Locke

- 17 pages

This is one document – please scan into your database as one single item.

Thank you

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Case No.: 5682A

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Application of: Fang et al.
Serial Number: 10/685,318
Filed: October 14, 2003
For: **TREATED TEXTILES AND COMPOSITIONS
FOR TREATING TEXTILES**

Group Art Unit: 1771

Examiner: Matzek, Matthew D.

Commissioner for Patents
PO Box 1450
Alexandria VA 22313-1450

Certificate of Mailing Under 37 CFR § 1.8

I hereby certify that this correspondence, and all correspondence referenced herein as being enclosed with this correspondence, is being deposited with the United States Postal Service in an envelope addressed to "Commissioner for Patents, PO Box 1450, Alexandria VA 22313-1450" with sufficient postage on the following

Date: October 29, 2007Signature: Linda-Ann ManleyName: Linda-Ann Manley**DECLARATION OF INVENTOR SIDNEY LOCKE**

1. I, Sidney Locke make this statement from my own personal knowledge. I am a co-inventor of the invention set forth in the above referenced patent application.

2. My educational background is that I received a degree in Chemical Engineering in 1998 from the Georgia Institute of Technology in Atlanta, Georgia. Further, I received a Masters in Business Administration from Wake Forest University in 2005. I have attended at least about eight (8) industry seminars or trade shows in the field of automotive parts or fabrics.

3. I am employed as a Development Engineer in the Automotive Group for Milliken & Company ("Milliken") in Spartanburg, South Carolina. I have personal knowledge of the facts stated in this Declaration.

4. To my knowledge, the present invention has, since conception of the

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invention, been owned by Milliken & Company. Milliken employees have an employment agreement obligation to assign inventions to Milliken & Company.

5. I am very familiar with fluorochemically treated fabrics, similar to those described in U.S. Patent No. 6,251,210 to Bullock et al ("Bullock"). In my experience, fluorochemical treatments of this type to textile fabrics generally cause the resulting treated fabric to be somewhat less conductive of charge than fabrics that do not receive such fluorochemical treatments. This may lead to undesirable charge build-up when using such treated fabrics.

6. I have reviewed the cited Bullock and Fraser (US Pat. No. 5,804,291; "Fraser") references. The Office Action combination of Bullock and Fraser prior art references would not, in my view, lead a person of skill in the art to the claimed invention. The result achieved by the invention is not predictable in light of these references.

7. The application of Fraser's aqueous solution could not be easily or readily applied as a secondary treatment to Bullock's primarily treated fabric. Bullock teaches two treatments – a primary and a secondary. The primary treatment applies 5% or more weight percent fluorochemical treatment agent. Then the fabric is dried. This primarily treated fabric would be highly water repellent. Water would essentially bead and slide from the surface of this fabric, without penetration. Any subsequent attempts to apply by dip coating an aqueous carbon black/binder treatment (as suggested by Fraser) would be ineffective.

8. Fraser teaches dipping the fabric to coat the entire substrate (all surfaces) with conductive material. Fraser does not teach selectively applying a conductive layer

to only one side of the material.

9. I am familiar with the prior art teachings of static discharge in fabric. The teachings in the prior art would tend to indicate that for the most efficient static discharge, one should apply conductivity enhancers to the user surface to make it likely for such enhancers be contacted by the electrical source. For some time, the industry has been using conductive face yarns for charge dissipation in certain applications. Such yarns are designed to provide the conductive material directly on the fibrous user interface, where the conductive face yarn contacts the user. In these prior art applications, the conductive material is available for direct electrical contact with the undesirable static charge that is introduced directly upon the fabric surface. Thus, the primary industry teaching in the art before the invention was to apply conductivity enhancers at or adjacent to the user interface. This prior art teaching is consistent with Fraser's teachings of full immersion dip coating, because dip coating an entire article would apply conductive material upon the user surface of the article.

10. Contrary to prior art teachings, we unexpectedly discovered that application of a conductive layer somewhat remote from the user surface actually works very well to reduce static. This feature is applied into a new set of products sold by Milliken marketed under the trademark "YES Essentials®". This is not to my knowledge recognized in the cited art, and this physical product configuration is at odds with the relevant teachings of the prior art. That is, it goes against industry trends in that respect. There is no suggestion in the cited art in Fraser or Bullock to substitute (for dip coating) a conductive coating layer that is located remote from the user interface. This feature of our invention is unexpected, and would not have been anticipated by a

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person of skill in the art. The attached illustration shows differences between (1) the teachings of a hypothetical Bullock/Fraser combination as stated in the Office Action, and (2) our invention. In the invention, the coating may be applied by foam applicator.

This foam application is made to only one side (i.e. backside) to form a back-coated layer. The conductive material may be printed or applied to the backcoated layer. Screen printing is one manner of applying conductive lines or regions into the backcoated layer. This separate conductive layer is positioned remotely from the user surface, so that the conductive material is not adjacent the user surface. There is a gap between (1) the electrical source that touches the user surface of the textile, and (2) the back-coated conductive coating layer that dissipates charge.

11. Common sense indicates that a person familiar with electricity would be unlikely to try using a remote conductive coating layer to dissipate charge on a fabric. Electrical conductivity in general is known to be enhanced by a continuous and uninterrupted circuit. In the context of a fibrous fabric, this connection would be from the static generating region to the static dissipating region. It is contrary to logic that one could achieve good static dissipation by employing a conductive coating layer that is physically removed (and therefore "remote") from the user interface. However, that is achieved by the invention -- which to me -- is unexpected and was unpredictable based upon my understanding of the prior art as it existed in 2003 and before that time.

12. The invention of this application was launched as an automotive body cloth seat fabric in about the middle of the year 2006. The fabric is sold using the trademark YES Essentials®. See also www.yesessentials.com for a full product description. The product is shown in the written material attached to this Declaration. The fabric

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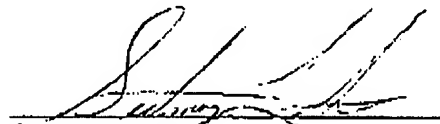
incorporates an easy to clean repellency finish on the user surface of the fabric, antimicrobial odor control, and static shock resistance. Static shock is long term a problem (particularly in winter) for persons exiting a vehicle. There has been a long felt need in the industry for effective solutions to this problem. In fact, static shock can be dangerous in association with refueling a vehicle, and static shock has been suspected of causing fires in such instances. The YES Essentials® product reduces or eliminates the static shock problem, and it does so in a product configuration that is soft to the hand, with stain and water resistance.

13. YES Essentials® is the most commercially successful automotive fabric product launch in the history of Milliken & Company. Milliken & Company, established in 1865, provides more than 50% of the seating upholstery fabric for vehicles made in North America. This new fabric now is sold to several major automobile manufacturers in the United States, for incorporation into at least the following vehicle models: Chrysler Sebring Convertible, Chrysler Town and Country Van; Dodge Avenger; Dodge Caliber, Dodge Caravan, Dodge Dakota, Dodge Durango, Dodge Nitro, Dodge Ram, Jeep Compass, Jeep Patriot, Jeep Wrangler, Chrysler Pacifica, Chrysler PT Cruiser and Chrysler Aspen.

14. This product now accounts for several million yards of fabric sold per year that incorporate the features of this invention. To date, the amount of revenue that may be attributed to the product is at least twenty (20) million United States dollars since initial product launch. The commercial success of YES Essentials® is believed to be due primarily to the novel and inventive features of the product, which are described in the above referenced patent application.

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15. All statements set forth herein are made of my own knowledge and are true, and all statements made on information and belief are believed to be true. I make these statements with the knowledge that willful false statements are punishable by fine or imprisonment, or both, and may jeopardize the validity of the application or any patent issuing thereon.

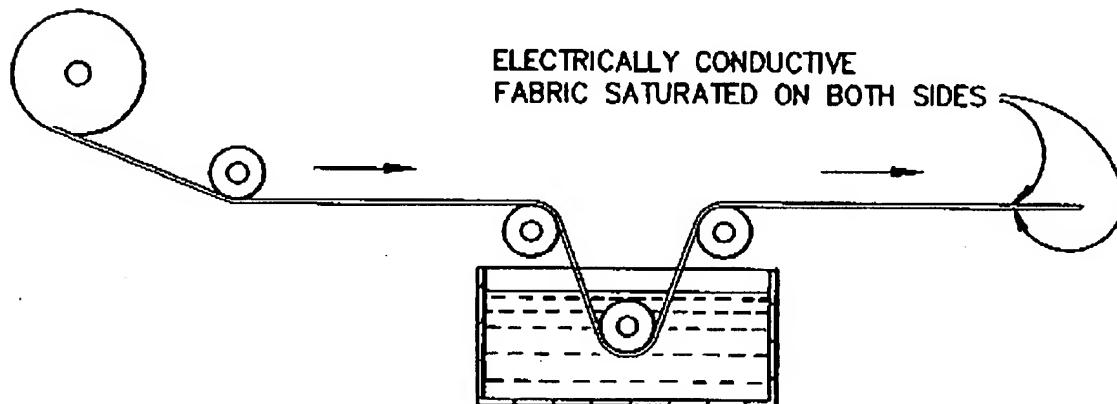
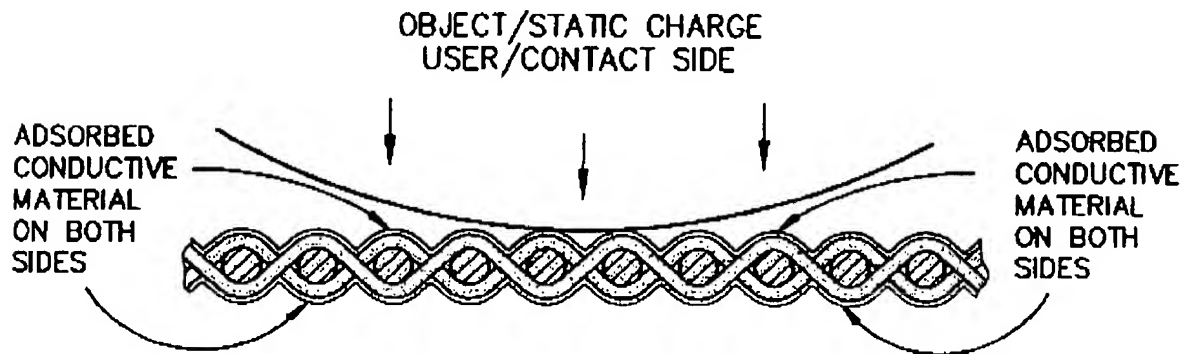


Sidney Locke
510 Silver Ridge Drive
Greer, Sc 29651

11/27/07
Date

1/2

FRASER/BULLOCK COMBINATION OF
A FLUORO-CONTAINING FABRIC WITH CONDUCTIVE
MATERIAL ON BOTH SIDES

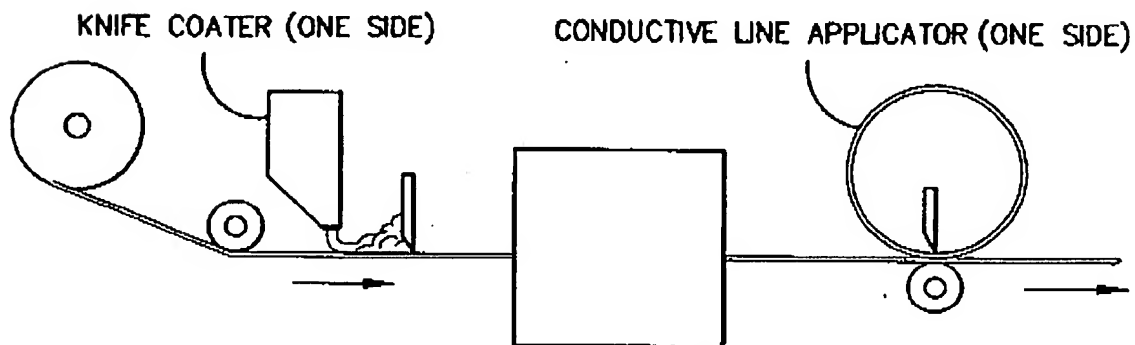
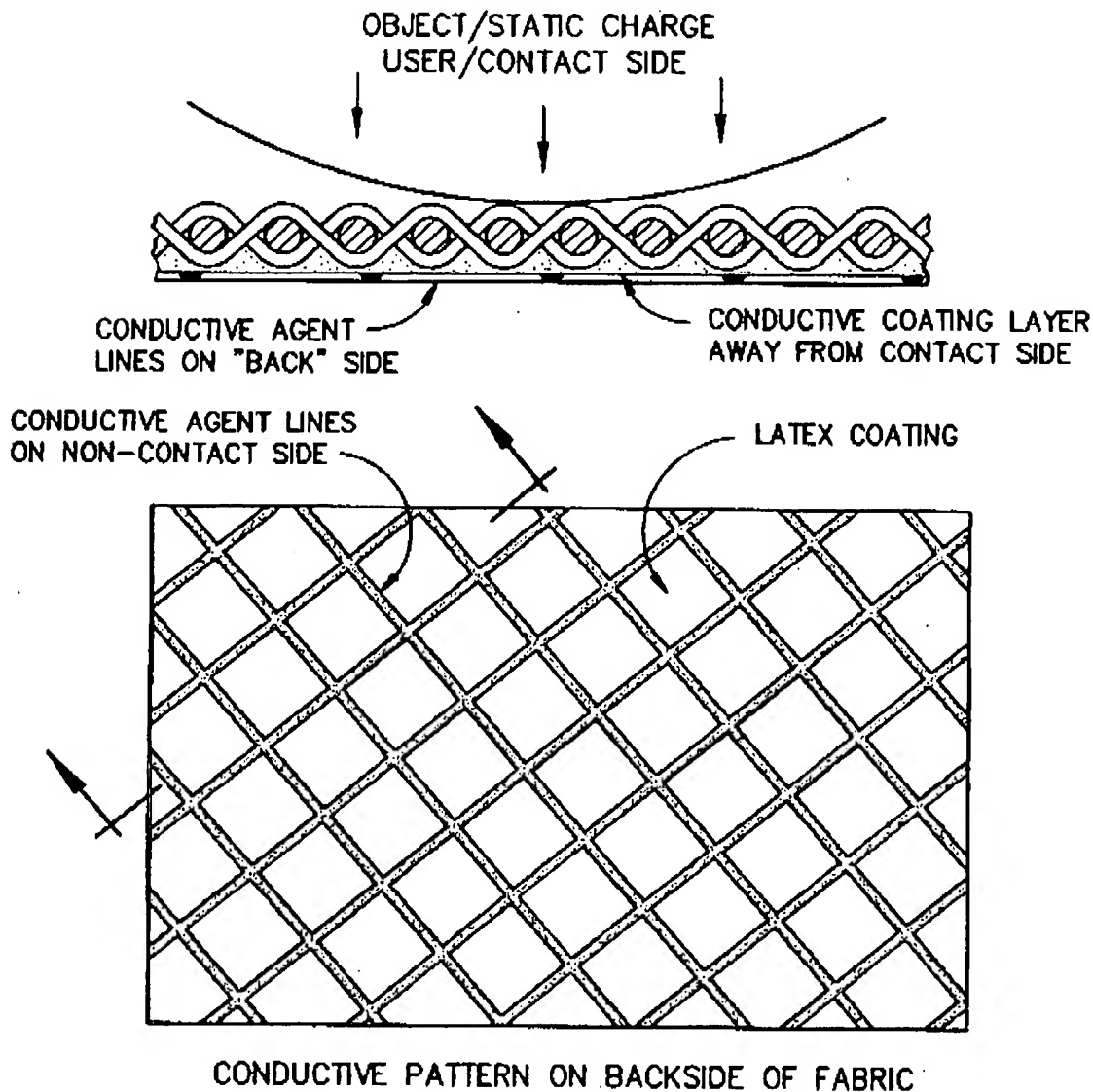


"DIP" COATING CONDUCTIVE MATERIAL
BY FULL SATURATION (IMMERSION) OF
A TEXTILE OR FABRIC

2/2

THE INVENTION

CONDUCTIVE LAYER ON BACKSIDE OF TREATED TEXTILE

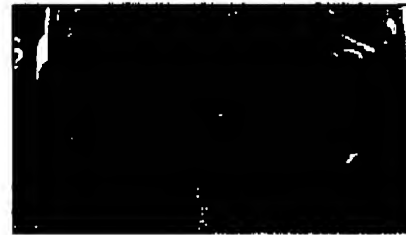







YES Essentials®

No Stains. No Smells. No Worries.®

YES Essentials is the only high-performance line of automobile fabrics and carpets that resists stains, odor and static, keeping car seats and carpets clean and fresh longer than ever before!



YES Essentials combines three patented and proprietary technologies engineered into the product line to give consumers worry-free automobile fabric and carpet that resist stains, odors and static.

- 
StainSmart® - stain resistant advanced stain-repel and stain-resistance technology keeps fabric looking great and makes cleaning up easy
- 
AlphaSan® - odor resistant antimicrobial technology prevents the growth of odor causing bacteria, mold and mildew
- 
ShockShield® - anti static static reduction technology minimizes static buildup to prevent shocks

You can find YES Essentials in select Chrysler, Jeep and Dodge models.

YESessentials.com

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**'07/'08 Chrysler Models Equipped with YES Essentials®****Chrysler Aspen**

(www.chrysler.com/en/2008/aspen)

**Chrysler Pacifica**

(www.chrysler.com/en/2008/pacifica)

**Chrysler PT Cruiser**

(www.chrysler.com/en/2008/pt_cruiser)

**Chrysler Town & Country**

(www.chrysler.com/en/2008/town_country)

**Dodge Grand Caravan**

(www.dodge.com/en/2008/grand_caravan)

**Chrysler Sebring Convertible**

(www.chrysler.com/en/2008/sebring_convertible)

**Chrysler Sebring**

(www.chrysler.com/en/2008/sebring)

**Dodge Avenger**

(www.dodge.com/en/2008/avenger)

**Dodge Caliber**

(<http://www.dodge.com/en/2008/caliber>)

**Chrysler PT Convertible**

(www.chrysler.com/en/2008/pt_convertible)



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CLIP

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Dodge Dakota
(www.dodge.com/en/2008/dakota)



Dodge Durango
(www.dodge.com/en/2008/durango)



Jeep Wrangler
(www.jeep.com/en/2008/wrangler)



Jeep Patriot
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Dodge Nitro
(www.dodge.com/en/2008/nitro)



Dodge Ram
(http://www.dodge.com/en/2008/ram_trucks)



Jeep Compass
(www.jeep.com/en/2008/compass)



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Corporate Backgrounder

Headquartered in Spartanburg, S.C., Milliken & Company is one of the largest privately held textile and chemical manufacturers in the world. Widely recognized as an international leader in research, technology innovation, and customer service, Milliken is strategically focused on combining textiles and chemical technology in unique ways to serve a vast array of markets and industries.

Milliken's products are used in automotive interiors, contract and residential furnishings, floor covering, military and consumer apparel, and industrial products. Chemicals from Milliken serve as brighteners, clarifiers, and colorants for a variety of consumer products and manufacturing components. The company's innovations offer the latest in safety, health and well-being, and convenience to consumers and industries around the globe. With more than 19,000 products, it's estimated that the average person may come into contact with Milliken yarns, fabrics or chemicals more than 50 times per day.

Milliken's cutting edge technology and research have influenced the development of YES Essentials®, a high-performance line of automobile fabrics and carpets that resist stains, odor, and static, keeping car seats and carpets clean and fresh. Through its deep understanding of consumers, Milliken maintains its leadership position in the automotive textile products industry, which it has held for more than 50 years.

Milliken's roots date back to 1865 when Seth Milliken and William Deering founded Deering Milliken Company, a small woolen fabrics company in Portland, Maine. In 1884, the company invested in a facility in Pacolet, S.C., and from that simple beginning its manufacturing operations grew. Milliken's rich history of technological innovation has resulted in more than 2,000 patents and the development of the largest combined textile and chemical research center in the world. Milliken employs more than 10,000 associates located at more than 55 facilities worldwide.

For decades, Milliken has been recognized as a leader in safety and health in the textile and chemical industry and was the second company in the United States to receive the honor of the Voluntary Protection Program (VPP) STAR from the Occupational Safety & Health Administration's (OSHA) State Plan. To this day, Milliken has received the coveted OSHA, VPP STAR Certification for many of its sites and ranks third nationwide for the number of awards received.

Most recently, Milliken was recognized by *FORTUNE Magazine* as one of the "100 Best Companies to Work For" in 2007. Additionally, *Ethisphere Magazine*, a national publication dedicated to illuminating the important correlation between ethics and profit, named Milliken & Company as one of the "World's Most Ethical Companies."

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MILLIKEN AUTOMOTIVE

Milliken Automotive is pleased to introduce YES Essentials®.

YES Essentials® is the ultimate solution to every kind of problem from muddy pets and soccer players to spilled coffee and greasy french fries. It's the way to transition from carpools to picking up important clients. It's exactly what today's non-stop professionals with families and full lives want and need.

YES Essentials makes a difference.

A breakthrough innovation that lets spills wipe clean from the softest pile and prevents stains like nothing ever before. An advancement that offers easy care, enhanced comfort, reduced germs and fewer allergens, all while managing odors.

How does YES Essentials accomplish all these tasks?

By offering a technologically advanced system of permanently integrated features developed by Milliken's Research and Development teams. Teams whose mission is to bring convenience, value, and peace of mind into today's 24/7 world.

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MILLIKEN AUTOMOTIVE

Easy Clean

YES Essentials® makes caring for your vehicle easy by providing a unique combination of repel and release features for its surfaces. These features are a permanent part of the textile or floor covering. YES Essentials outstanding performance includes the ability to remove spills like coffee, juice, or ketchup with just a damp cloth. For mishaps that don't get your immediate attention, we take care of those, too. Tough challenges like pizza sauce and greasy French fries or lipstick, even permanent marker can't make us say No. For tough everyday or even disaster stains, our answer is always, YES.

How easy is it? You take the challenge and decide.

- Clean spills and stains promptly.
 - Using a towel (paper or cloth), gently blot or wipe the stain to remove any excess liquid.
 - Avoid pressing the stain into the fabric or spreading it to the surrounding areas.
 - With each blot, use a clean area of the towel and continue until all excess stain has been removed.
 - Some stains may require a mild soap or detergent solution for complete removal.
- See the attached grid for best practices.

Odor Control

YES Essentials® assists in the management of odors that often result from mildew and bacteria growth caused by stain remnants. This management system incorporates a safe, anti microbial treatment that reduces the growth of bacteria 99% to 99.9%. The anti-microbial works in conjunction with the repel and release system to ensure that any minute particles from the stain do not become a breeding ground for microorganisms like *Staph*, *E.coli* and black mold.

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MILLIKEN AUTOMOTIVE

Comfort

YES Essentials® offers added comfort. Comfort that comes from three areas: faster drying time, reduced static shock, and protection from the growth of germs and bacteria. Our faster drying time is a direct benefit of the unique repel and release system. Because spills don't soak into the fabric, there's never a lingering wet area to avoid or cover with towel. And we've all suffered the discomfort of static shock when exiting the vehicle. YES Essentials brings a revolutionary, permanent solution to reduce the generation of static electricity from vehicle entry and exit by more than 50%.

Plus, knowing that the interior is inhibiting the growth of germs and bacteria brings one less worry to anyone's mind.

Performance

Perhaps, the best feature of YES Essentials is its endurance. We've subjected YES Essentials to a number of rigorous conditions including 10,000 cycles on a Martindale tester with 12 Kpa weight followed by multiple staining and cleaning in the same spot. There was little to no deterioration in its performance. YES Essentials is an integrated part of the textile's polymers so all of its performance features (anti-microbial, repel and release, comfort, odor management) are here today and tomorrow.

Peace of Mind

With any new product, concern for safety and health is always a priority. Combining easy clean and antimicrobial characteristics was no easy challenge, but our solution is one that offers the best use of innovative technology to achieve our goals and still foster our concerns for people and the environment.

Antimicrobial: Use of a dependable, durable and safe antimicrobial is the best way to provide residual protection against microbial contamination as a supplement to proper hygiene practices. Silver, the component of our antimicrobial, is well known

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MILLIKEN AUTOMOTIVE

to be safe for human contact. Our antimicrobial is currently used in many consumer product areas including food and beverage, apparel and medical treatment.

Easy Clean: Above any other performance consideration, our easy clean characteristic had to be the safest to our knowledge for humans and the environment without sacrificing any other performance feature. Our easy clean solution relies on the fundamentals utilized to create apparel, food packaging and preparation devices which rely on similar performance features.

Without any doubt, consumers will prefer surfaces that eliminate worry, make each day a little easier and protect their investment.

The answer is YES.

Should you have any questions regarding YES Essentials®, please contact your sales representative or email us at yes.essentials@milliken.com.

Note:

Appendices have been attached to provide more concise performance features and claims regarding this product.

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MILLIKEN AUTOMOTIVE

How the Product Works

Yes Essentials® products are engineered to provide a wide range of functional benefits.

Easy Clean

Repel
+
Release

Durable



- Liquid stains wipe away
- Oily food stains require minimal effort
- Tough, ground in stains can be totally removed
- Repeated cleans continues to restore fabric to like-new condition

Safety / Health

- No harmful chemistry
- Environmentally friendly manufacturing process
- Technologies used in other consumer goods (cookware, food packaging, floor covering, etc.)
- Reduced allergens (mold, mildew) and germs

Odor Control

Safe and durable
antimicrobial properties
+
Repel/release



- 99% to 99.9% reduction on most fabrics in the growth of odor-causing bacteria
- Stains do not wick to the back of the fabric
- Surfaces dry faster after spills
- Release function prevents excessive food residue
- Permanent

AlphaSan®

Performance

- No negative affect on abrasion, light-fastness or other automotive specifications
- Product withstands repeated cleaning cycles
- Benefits are permanent

Comfort

- Faster-drying surfaces
- Greater than 50% reduction in static generation
- Performance can be engineered with a wide variety of fabrics

Design

- Engineering range allows for design flexibility
- No negative effect on hand
- Functional benefits allow the use of lighter colors and reduce the need to camouflage stains with pattern

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